The Modern Treatment of Cardiac Defects

SQUILL was much appreciated by the ancients, and we know from the Papyrus "Ebers" that its effect upon the heart was known as early as in the sixteenth century, B.C. In mediæval times it was still a popular remedy for the treatment of dropsy. But it gradually disappeared almost completely from our materia medica, and *Huchard* does not even mention the drug in his "Thérapie clinique" published in 1911, the reason being the unreliable and inconstant action of Squill which varies according to species, age and habitat up to 800 per cent.

The history of squill is a new example of the fact that the present century of exact research is able to justify and scientifically explain the beliefs in and use of an ever-increasing number of ancient popular remedies. Basing his conclusions on the literature recently published on squill and Scillaren, *Cheinisse* has recently defined his attitude towards this important problem in a paper published in the "Presse Médicale." The very significant title of this paper was "La scille réhabilitée en tant que médicament cardiaque."

Scillaren is a crystalline glucoside isolated in 1921 by *Stoll* and *Sutter* from urginea scilla. Its pharmacological activity, measured on the frog's heart, is, according to the method of *Houghton* and *Straub,* about 1,200 F.D. per 1 mg. of the pure substance. The so-called pure substances isolated earlier represent, if they are standardised by the same method, only 100 F.D. (Scillaine, isolated in 1880 by *Jarmersted)* and 500-600 F.D. (Ewins purest substance isolated in 1921).

Numerous animal experiments and controls show that Scillaren represents the total action of the bulb of urginea scilla. It is a chemically and physically pure substance and may consequently be standardised by simple weighing.

According to the results of pharmacological examination, Scillaren occupies as a cardiac tonic an intermediate position between Digitalis and Strophanthus. It is further characterised by its low toxicity when tested on vertebrates, by the fact that it may easily be washed out of a frog's heart poisoned with this substance, and by its rapid elimination.

CLINICAL POSITION AS A CARDIAC REMEDY

The favourable influence of Scillaren upon pulse-frequency, contraction of the heart, œdemata and dyspnoea has been confirmed by every author. According to *Fahrenkamp* Scillaren is not indicated for the treatment of certain

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syndromes, but rather for certain patients. *Wenckebach*, *Jenny* and *Lewin* prescribe squill (*i.e.*, Scillaren) in cases where Digitalis ceased to act and *Nägeli* (Zurich) always begins the treatment with Scillaren in order to keep the more poisonous and cumulative remedies in reserve.

Géronne considers the indications for the use of Scillaren to be very nearly if not quite the same as those of Digitalis and Strophanthin and he believes that in this conclusion is to be found the correct basis for its practical use.

DOSAGE

By the mouth: 1/130 gr. (0,5 mg.) Scillaren = 1 tablet = 15 drops, 3-4 times a day. Or 1½ gr. Scillaren pulv. c. sacch., 3-4 times a day.

Intravenously: 1/130 gr. (0,5 mg.) Scillaren = 1 ampoule per day.

N.B.—1/65 gr. of Scillaren represents approximately 3 grs. of good drug, or 17 min. of the B.P. tincture.

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PACKAGES

Tablets of 1/130 gr. (0,5 mg.)	Tube of 20. Bottles of 100 and of 250.
Solution (1/130 gr. in 17 min.)	Bottle of 20 c.c. Bottle of 200 c.c.
Ampoules of 1/130 gr. (0,5 mg.)	Boxes of 6, 20 and 100 Ampoules.

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